

### DETAILED ACTION

1. Amendment and response filed by applicants dated Jan. 4, 2008 have been entered and considered carefully.

Claims 8-9, 19, 21-23, 25-30, 33-42 have been canceled.

Claims 1-7, 10-18, 20, 24, 31-32 are pending.

2. *Restriction*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7, 10-18, 24, drawn to compounds and composition, classified in class 546, subclass 201.
- II. Claim 20, drawn to method of treating diabetes or obesity, classified in class 514, subclass various, depending on species election.
- III. Claim 31, drawn to method of treating diseases using combination of drugs, classified in class 514, subclass various depending on species election. If this group is elected, a further election of a single disclosed disease using a single disclosed combination is also required.
- IV. Claim 32, drawn to method of treating obesity related disorder, classified in class 514, subclass various, depending on species election. If this group is elected, a further election of a single obesity related disorder using a single disclosed compound is also required.

Inventions I and II-IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case treating diabetes can be practiced with compounds such as glucophage.

During a telephone conversation with Richard Billups on April 24, 2008 a provisional election was made without traverse to prosecute the invention of group I, claims 1-7, 10-18, 24.

Claim 20 will be rejoined with the elected compounds, thus, the restriction between group I and II are withdrawn.

Claims 31-32 are withdrawn from further consideration by the examiner per 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claims 1-7, 10-18, 20, 24 are pending.

**3. Examiner's Amendment**

Authorization for this examiner's amendment was given in a telephone interview with Mr. Richard Billups on April 24, 2008.

Amendments are made to the Jan. 4, amended claims as following:

Claim 1, page No. 4, the Markush item (13) for R<sup>4</sup> is deleted;

Pages No. 5-6, the moiety R<sup>9</sup> with all the variables (1-44) are deleted;

Claim 6, page No. 8, the Markush item (26) for R<sup>4</sup> is deleted;

Claim 12, page No. 10, the Markush item (12) for R<sup>4</sup> is deleted;

Pages No. 11-13, the moiety R<sup>9</sup> with all the variables (1-44) are deleted;

Claim 13, page No. 15, the Markush item (12) for R<sup>4</sup> is deleted;

Pages No. 16-17, the moiety R<sup>9</sup> with all the variables (1-44) are deleted;

Claim 14, pages No. 17-18, 2<sup>nd</sup> and 4<sup>th</sup> compounds are deleted;

Claim 18, pages No. 19-20, canceled.

Claim 20, page No. 20, line 1, delete "or prevention",

Line 3, delete "or prophylactically";

Claim 24, page No. 20, line 1, after the term "comprises" insert

--an effective amount of--;

Claims 31-32 (non-elected ) canceled.

**4. Reason for Allowance**

The following is an examiner's statement of reasons for allowance:

The closest compounds are disclosed in the commonly owned US 6,818,658 wherein similar compounds wherein the R<sup>4</sup> moiety was claimed to be an carboxylic acid acyl moiety (see for example claim 11). Applicants have deleted the obvious variation when R<sup>4</sup> is amine substituted with the analogous prodrug such as aminoacid acyl groups (see Pochopin et al.), thus, obviated any obviousness issue with the issued claims. The claims compounds have IC50 similar to the known compounds in melanocortin receptor activity which have been known to have efficacy in lowering blood glucose level or treating obesity (see Banno et al., Obici et al. or Pieroz et al.). Claims 1-7, 10-17, 20, 24 as currently amended are allowed.

References recited on PTO-892 are to show support from the state of the art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**5.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celia Chang, Ph. D. whose telephone number is 571-272-0679. The examiner can normally be reached on Monday through Thursday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet L. Andres, Ph. D., can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

OACS/Chang  
Apr. 24, 2008

/Celia Chang/  
Primary Examiner  
Art Unit 1625